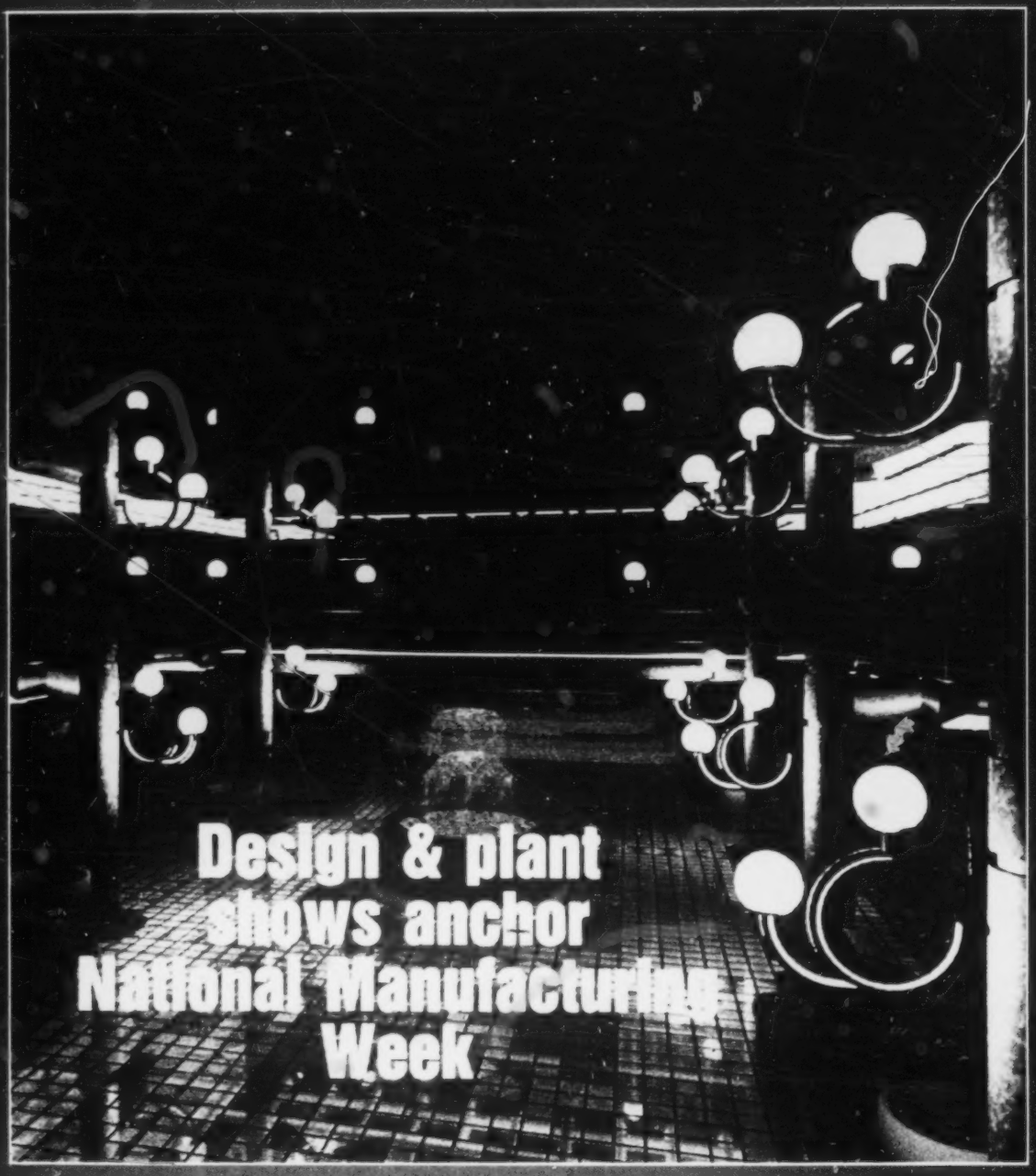
A HUEBCORE PUBLICATION

PurchasingWorld®

MANAGING THE BUSINESS OF BUYING

MARCH 1991



Design & plant shows anchor National Manufacturing Week

Crystal Ball winners • Quality focus • Strategic pricing

Sony CEO's zingers • Vehicle leasing • Recycling

CONTENTS

March 1991, Vol. 35, No. 3

COVER STORY

26 Design, plant engineering anchor National Manufacturing Week

Photo quality computer-aided design as seen on this month's conver is just one example of what purchasing pros will see during National Manufacturing Week, April 8-11 in Chicago at McCormick Place.

On the cover: This stunning image was entirely computer generated with Point Line CADD and Pixar's Photorealistic RenderMan software. St. Louis Centre original design by RTKL, enhanced by Luis Morgan.

FEATURES

7 1990 Crystal Ball Winners

The best forecasters in the purchasing world are highlighted in PW's forecasting competition. This year's winner—won by a postmark date and comes from Polaroid Corp., the perennial top corporate finisher.

28 How good is your quality?

Here's a way to size up the climate for partnershipping at your company and commitment to Total Quality. The two self-help tests were designed by SEMATECH, a consortium of semiconductor manufacturers.

31 Strategic pricing aims at all-in-cost

Dr. David Burt describes the revolution that has replaced lowest price thinking. Based on the concept developed at Polaroid Corp. and described in the book Zero Base Pricing.

34 Vehicle changes change leasing

Car talk with managing editor Ron Stevens about fleet leasing by industry, utility companies, and governmental agencies.

39 Value in prime sourcing

Ralph Bolton asks what price a buyer should expect to pay for MRO purchases. Which discount list are you quoted from—MRO customer, OEM customer, or preferred customer list? It makes a difference. Any company spending $4 million a year on its MRO requirement has the potential of reducing cost by $500,000.

42 Recycling tasks are part of the job

Assistant editor Nan Webb says that purchasing pros are witnessing a classic case of garbage inflation—too much garbage chasing too little disposal capacity.

DEPARTMENTS

4 Editorial
A cast of hundreds

6 PW Pointers
EDI study; C.P.M. requirements; directories

9 PW Predicts
State of confusion; fundamentals out of whack, says John Sheridan

13 Negotiations
Purchasing at its crisis point

14 Inside Purchasing
Know your freight terms

15 Business DataTrak
Regional perspective on oil

36 The Business Issues
What the U.S. edition left out

44 Literature

45 Products

46 Buyers Lit Digest

48 Advertisers' Index

49 Classified

52 Purchasing and the Law
Recovering consequential damages

PurchasingWorld

Thirty

Saying goodbye to an old friend is never a pleasant task. That's the position I find myself in writing this epitaph. This is the last issue of PurchasingWorld magazine that we'll be publishing.

There is no shortage of fine business ventures that have fallen prey to the difficult economic times. As much as we would wish it otherwise, PW joins them with this issue.

We thank our friends and advertisers for their support and wish them continued success.

As in any illustrious lifetime, there is no shortage of heroes that dot the history of this magazine.

Founded in 1958 by McGraw-Hill as a weekly tabloid newspaper, PW has a tradition of association with purchasing excellence.

In 1983 Paul V. Farrell C.P.M., a winner of the N.A.P.M.'s J. Shipman Medal, became editorial director. Paul who has the unique distinction of being the former chief editor of both purchasing magazines and an N.A.P.M. executive, was the first business press editor so honored.

This past year PW columnist Dr. Ken Killen C.P.M., a professor of purchasing at Cuyahoga Community College, and a noted consultant and lecturer was named winner of the Shipman Medal.

Editor during the 1960s was Edgar A. Grunwald, who to many is the dean of American business press editors. He and Paul Farrell are arguably the best editors ever to serve the purchasing function.

The years in between have seen a succession of outstanding editors and professional columnists serving PW's readers.

During the 1970s when Purchasing Week was transformed into the monthly PurchasingWorld magazine and into the 1980s, editors included John F. O'Connor, James E. Morgan, Richard Dunn, Edward Walter, and for a brief stint before joining another of our company's publications, *Tooling & Production* magazine, Stan Modic.

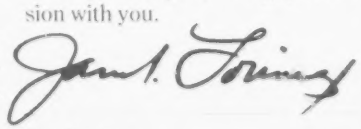
Stan was recently named the winner of the American Business Press's prestigious G.D. Crain Jr. Award for Career Editorial Achievement. Gene Beaudet who has been writing on the Business Issues has been similarly honored with the Crain Award.

Providing the economic forecasting and pricing information for PW for most of its publishing history was executive editor Robert S. Reichard. Since April of 1990, the role of chief economist has been held by John Sheridan, a bright young economist with an equally bright future in the field.

Today's columnists represent the very best in their respective fields: Dr. John E. Murray Jr., president of Duquesne University, on law; Louis DeRose on negotiations; Ralph Bolton on MRO prime sourcing; Thomas F. Dillon, C.P.M. on transportation; Robert L. Janson, C.P.M. on management; Garry Hersman on software; and Caroline Reich on buying for the office.

Special thanks are owed to all staff past and until this issue—present. Their honor roll is the masthead at the right.

Each worked hard to share our vision of the purchasing profession with you.



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PW PREDICTS

State of confusion

By John W. Sheridan
Chief Economic Editor

Economic confusion can be defined as the condition in which fundamentals are out of whack and not following their proper relationships. Clearly, this is the case today.

In an attempt to diminish this level of confusion, I went out and talked to some of the top economists our country has to offer. Probably not surprising, my survey of 17 economists (see economic advisory board below) produced more than 40 feasible scenarios, which obviously didn't solidify my frame of reference. Or ease my mind.

It was good to discover that some economists remain upbeat. In fact, James Smith, a professor at the University of North Carolina, goes so far as to say that reporters might be writing about "the recession that wasn't" in another couple of months.

The consensus, nevertheless, is forecasting (and I think hoping and praying as well) that signs of an economic recovery will be visible by mid-year.

It isn't difficult to provide sufficient rhetoric that this recession will be milder than average in its severity, for the same reason that prior to Saddam Hussein's thuggery, most economists held the view that the Fed's soft landing was relatively on course.

Even now, if one analyzes the fundamental factors which have preceded all economic downturns since the Great Depression, no reason for panic is uncovered. The yield curve (more fully explained in the DataTrak section) isn't inverted. Inventories, while of concern in the retail sector, are by historical comparison, extremely good in the manufacturing sector. The core rate of inflation is not spiraling higher. Capital spending hasn't taken the sharp plunge it traditionally has at the onset of recessions, with expectations that expenditures on new equipment will keep this sector stabilized (though I do not have unshakeable confidence in this view). Plus, corporate profits finished 1990 in the black.

Other positive factors: the greater proportion of families with two income-earners; and the fact that 30% of domestic mortgage debt is tied to variable rates. Interest rate declines should subtract roughly $7.5 billion from consumer mortgage interest payments this year, according to James Coons of Huntington National Bank.

So what's the confusion (besides that being incited from the Middle East). All recessions are forced corrections, but it is evident from the preceding paragraphs that the traditional aggravators of decline aren't significantly out of line. So, if recessions are the consequence of the need for an economy to be cleansed of bad investment, unsound debt and marginal firms, in order to pave the way for more sustainable economic growth in the future, where are the current imbalances?

The downside risks in this recession aren't observable from a "classical perspective." The service sector (representing 78% of the labor force), and especially the financial sector, are today's problem areas, currently undergoing a significant restructuring. Moreover, it's beginning to appear that the perceived (isn't perception reality?) credit crunch is aggravating a much more significant problem: a short-term lull in the outlook for long-term business investment. Are quickly deteriorating commercial bank portfolio positions creating a modern day liquidity trap? Thus far, commercial banks have been very reluctant in following the Fed's gradual lead at establishing easier credit.

So what's the confusion? Not since the Great Depression has an economic slide been so unique with respect to its downside risks.

ECONOMIC ADVISORY BOARD

- **Jean Bratton, The Timken Co.;**
- **Rosanne Cole, IBM Corp.;**
- **James Coons, Huntington National Bank;**
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- **James Smith, University of North Carolina;**
- **Richard Vedder, Ohio University;**
- **William Wallace, The Boeing Co.;**
- **Robert Wendt, Bethlehem Steel Corp.**

Waste disposal critical

Overview: In 1990, the dollar value of the hazardous waste treatment and disposal market exceeded $73 billion. Services tied to this function are booming, too ($6 billion in 1990). As regulations tighten and more debris is classified as hazardous, firms that cannot afford hazardous waste disposal and treatment equipment will demand even more outside assistance.

Demand: Last year, more than 700,000 industrial generators created an estimated 345 million tons of hazardous waste, according to Leading Edge Reports. The Cleveland-based researchers report that chemical and allied products manufacturers were responsible for generating roughly 170 million tons of this waste (see chart).

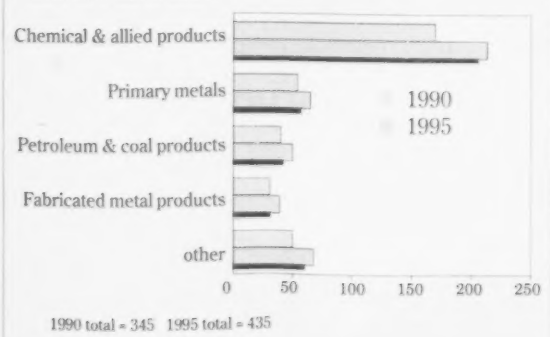
Supply: More than 10,000 public and private firms exist in support of this problem, providing specialized services in engineering, testing, insurance, transportation and other technical activities. In fact, since 1984, revenues in this industry have soared over 21% annually, with transportation the hottest component of the services segment.

Land disposal still handles the majority of hazardous debris (75%); In 1995, the cost of hazardous waste land disposal is forecast to reach $203 per ton. Incineration is becoming the most-desired way of dealing with hazardous waste, with yearly growth above 15% expected through 1995.

Outlook: Treatment and recycling are projected to grow 17% annually during the 1990-1995 period. In 1990, 25 million tons of hazardous waste was recycled, while another 20 million tons got treated either chemically or biologically. Clearly, this leaves an enormous amount of "known and reported" hazardous material to be dealt with. Of the estimated 59,600 hazardous waste sites, only 1,200 are on the Superfund's National Priorities List. Many more sites will need attention in the years ahead.

Generating hazardous waste

million metric tons



1990 total = 345 1995 total = 435

R&D slowing, but still growing

The annual Battelle research and development (R&D) forecast estimates slowing, but still growing expenditures this year, of about 3.5%, to $155.2 billion. In inflation-adjusted terms, however, the rate of investment growth slows to only 1%, which is significantly below the 4% average that was witnessed during the 1980s.

Who's going to be doing this research? According to Battelle, Columbus, OH, the breakdown is as follows: industry, 71.5%; federal government laboratories, 11.3%; academic institutions, 14.4%; and nonprofit organizations 2.8%. And who's paying for the research? The two big funders are industry, ($76 billion) and the federal government, ($72 billion.)

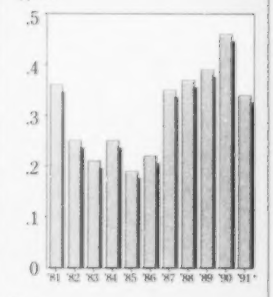
Further softening expected for lead

Lead prices are one of the many commodities retreating as recession heats up. The WEFA Group boldly predicts that prices here will slide through the third quarter, falling near the 25¢/lb mark. While robust car-building demands in Europe will be a positive factor in global demand, weakening business activity and new regulations discouraging the use of lead in the U.S. will keep this nonferrous metal market soft.

Total production is expected to jump over 4% in 1991, with mine capacity expanding 2.5%, which could push the lead market into a surplus of approximately 50,000 tons. Unless demand soars, prices will be hard pressed to average more than 30¢/lb this year.

Lead

$/lb



*Recent

World textile markets mixed

Growth in per capita global textile consumption has averaged 3.6% annually since 1960. While demand growth in the seventies was stagnant, most developed countries increased consumption in the 1960s and 1980s. Julia Blake, a leading textile analyst at Barclays, London, forecasts world growth of 3.1% per year during the 1990s. A short-term overabundance in supply is expected to depress prices for the next year or two in the Asia/Pacific region. In the U.S., however, concern is being raised over tightening domestic supplies of cotton for 1991.

'91 labor challenges

This year won't be without its labor negotiation challenges for management and laborers. Major agreements (covering 1,000 workers or more) will reopen or expire for 2.8 million workers in 1991: 1.3 million state and local government employees; and 1.5 million workers in the private sector.

Collective government agreements will affect roughly 2.6 million people in 1991, implying that this year's bargaining will represent more than half of all workers under major government agreements. Of the 1.3 million governmental workers affected, 612,000 represent local government employees.

In the private sector, 1991's bargaining calendar represents slightly more than one-fourth of the industry's 5.9 million workers under major agreements. Contracts come up for 570,000 manufacturing employees during the next 12 months. Nonmanufacturing negotiations will impact 901,000 laborers. The primary industries affected: construction (230,000); wholesale and retail trade (195,000); trucking (187,000); and mining (65,000).

Due to the uncertainty from the commotion in the Gulf, rising unemployment, moderating inflation rates and stagnating business investment here at home, along with the general unwinding of business activity both domestically and overseas, wage hikes similar to those of the past few years will be very difficult for workers to bring off.

For a more detailed analysis of 1991 labor contracts, see the January issue of the *Monthly Labor Review*, prepared by the Bureau of Labor Statistics, U.S. Department of Labor.

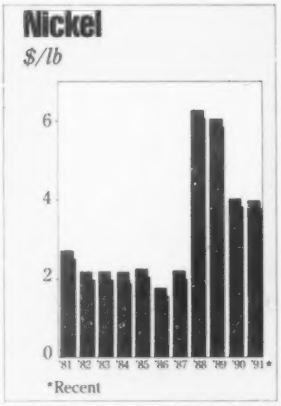
Industry	Agreements	Workers
Building construction	27	81,315
Nonbuilding construction	30	65,030
Special trade construction	42	83,700
Food and kindred products	16	64,020
Apparel	19	138,000
Lumber and wood products	2	4,150
Furniture and fixtures	2	2,100
Paper and allied products	4	4,940
Printing and publishing	4	6,500
Chemicals and allied products	9	13,730
Rubber and plastic products	8	35,320
Stone, clay, glass and concrete	3	4,300
Primary metals	3	24,600
Fabricated metals	3	4,575
Industrial and commercial machinery	7	39,300
Electronic and electrical equipment	13	118,650
Transportation equipment	19	80,416
Retail, food	34	122,950
Electric, gas and sanitary	24	65,211
Finance, insurance and real estate	6	53,000
Services	20	51,348

Machine tool exports outstanding

While the data for total 1990 shipments has yet to be compiled, it is safe to say that 1990 was an outstanding year for U.S. machine tool exports. The record for domestic exports to West Germany, which was established in 1989 at $61.6 million, was already surpassed in October of 1990 ($66.8 million). While sales to Western European countries are better than ever, so are sales to Australia, Belgium, Chile, Greece, India, Italy, and Japan.

Nickel volatility in the past

The past few years have witnessed large swings in the price of nickel, but overriding demand fundamentals suggest that such volatility is behind us. After surging to over $8/lb in 1989, 1990 saw prices fall to $2.85/lb in February, soar to near $6/lb in the summer, then retrench into the low $4/lb range by year-end. Although stainless steel demand (which accounts for 60% of nickel needs) was stagnant in the U.S. last year, German and Japanese consumption held strong. Unfortunately, the backlash of recession in the U.S. will stimulate a plunge of at least 2.5% in global stainless steel demand this year, with nickel consumption falling by a similar amount. With supply increasing and demand forecast to be dormant through most of the year, current 1991 price projections are for nickel to fall toward the $3.50 level.



Investment plans being trimmed

After increasing investment 5.2% in 1990 and 11.4% in 1989, businesses are currently planning to invest only an additional 2.4% this year. Worse yet, further scaling back on plant and equipment (P&E) expenditures is likely.

In the Commerce Department's latest survey, manufacturing industries are expecting to up 1991 spending by 0.7%, significantly less than last year's 4.6% hike. Planned investment for durable goods industries is expected to rise 0.8% in 1991, while non-durable goods industries plan a 1.8% advance. Nonmanufacturers, meanwhile, are planning to increase P&E spending 3.4% this year.

Auto sales sinking

Overview: Entering 1991, U.S. car companies are searching for the formula to turnaround the slide in sales witnessed in 1989 and 1990. With the economy in the midst of recession, further sinking of Big Three (GM, Ford and Chrysler) auto sales is expected again this year.

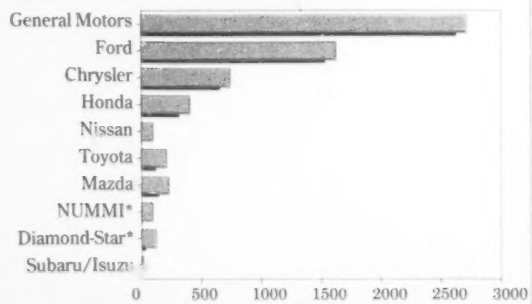
Demand: Even assuming the economy shows signs of revival by mid-year, total vehicle sales are forecast to fall 8%, following the nearly 5% plunge of 1990. Passenger car sales aren't expected to do much better, dropping 7% this year. Positive trends helping to support new sales: an increase in the 25-44 year-old age group; the lower age at which cars are scrapped; quality and style enhancements which more quickly obsolete previous models; the over capacity of production facilities; and extreme competition, which should keep auto prices very favorable in relation to the general level of consumer prices.

Supply: Foreign manufacturers have located production facilities domestically to circumvent or head off trade restrictions, while also eliminating the worries brought by the volatile foreign exchange market. Currently, the Japanese operate seven North American plants. The share of market accounted for by transplants (plants owned by foreign manufacturers) has soared from 3% in 1986 to over 15% currently, more than offsetting the declining market share of non-Canadian imports (falling since 1987).

Outlook: A large increase in fleet purchases (rental agencies, corporate fleets and leased vehicles) provided a temporary boost to sales in the fourth quarter of 1990. Production cuts have been made by the Big Three to come more in line with their market shares. After falling roughly 11% in 1990, domestic passenger car production is expected to sink again this year, with optimists predicting a 5% fall, while the consensus is forecasting a 10% slide.

U.S. passenger car production

thousands of units



Diamond-Star = Mitsubishi joint venture with Chrysler
NUMMI = Toyota joint venture with GM

U.S. linerboard prices tumbling

The recession has hit the U.S. containerboard industry. After absorbing the storm through most of last year, linerboard and medium prices are beginning to retreat. Inventories are said to be climbing, and transaction prices for 42-lb linerboard have reportedly tumbled to $350/ton, with discounting into the $300/ton range, especially in the Northeast. With capacity rising, demand weakening and operating rates falling, no price firming is expected until late 1991 or early 1992.

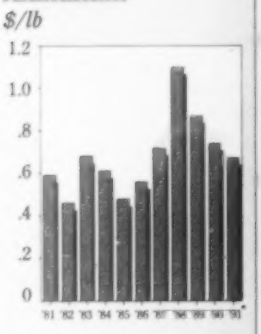
Aluminum prices holding steady

But for how long? Operating incomes at America's three largest aluminum producers dropped sharply last year after the industry's record-setting performance of 1989. William O. Bourke, Reynolds Metals' chief executive officer, thinks global demand will advance marginally in 1991, as Europe and Japan hold the key to shipments. In fact, Europe has become the world's number one consumer of primary aluminum.

Shipments in the U.S. fell about 5% in 1990, while rising 2% in Europe and nearly 6% in Japan. If Bourke's prediction on worldwide shipment growth of 2% for 1991 is to come true, strong numbers overseas will be required. Prices are now at their lowest level (67¢/lb) in over a year, but should begin to stabilize in the 65-70¢/lb range. With scheduled net smelter capacity set to increase 2% this year, and no significant supply disruptions present, the market will probably move in unison with U.S. demand, which isn't likely to rebound until the third quarter.

Aluminum

$/lb



*Recent

Large variance in global gas costs

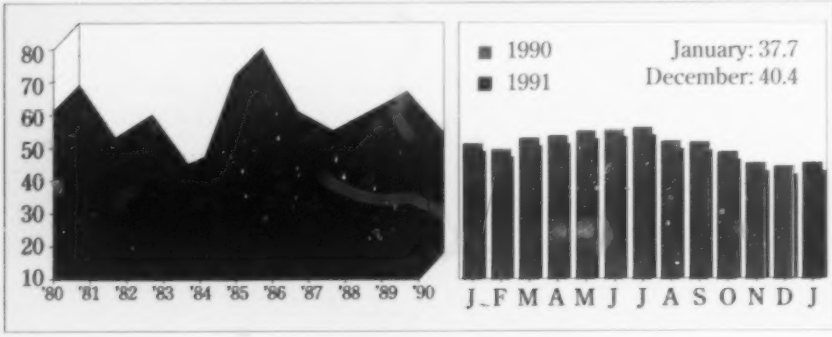
No doubt Saddam's thuggery, which incited soaring prices at the pump last year, forced major spending reappropriations However, prices in America are significantly lower than prices in other major countries. On October 15, 1990, per-gallon gas prices (and tax burdens in parentheses) around the world were as follows: U.S., $1.34(25¢); Japan, $3.89($1.49); Germany, $3.52($1.92); United Kingdom, $3.67($2.00); France, $4.37($2.95); and Italy, $5.21($3.53).

BUSINESS DATATRAK

By John Sheridan, chief economic editor

N. A. P. M. business barometer

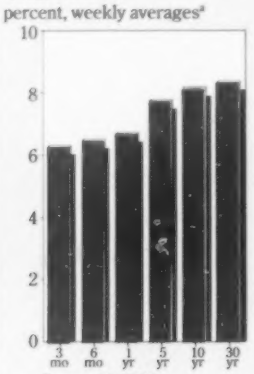
Based on five indicators (employment, inventories, new orders, production, vendor performance)



Leading indicators

Yield curve

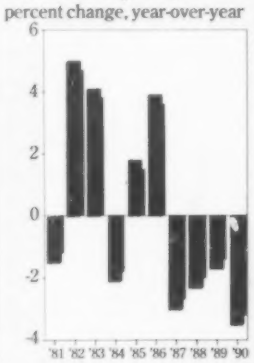
percent, weekly averages[a]



a = January 11, 1991

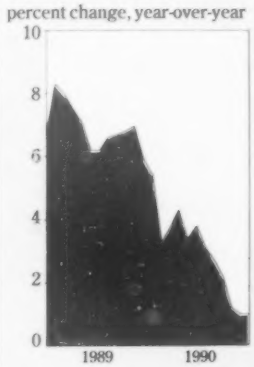
Domestic liquidity

percent change, year-over-year



Business loans

percent change, year-over-year



Source: Dept. of Commerce; Board of Governors

KEY ECONOMIC TRENDS

Accuracy versus optimism

Voltaire is given credit for saying, "Optimism is that mania for believing all is well even when things are going badly." Such may be the case today, in terms of the current recession being less severe than normal. Certainly the consensus forecast of a short and mild recession is not unreasonable, especially when considering manufacturing's lean level of inventories.

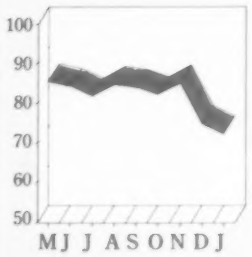
James Smith of the University of North Carolina will also tell you that in all but one of the 15 recessions since the Federal Reserve was established in 1913, the yield curve became inverted prior to its onset. This means that the rate of interest on short-term securities was greater than the interest being paid on longer-term (10- and 30-year) securities. Such inversion usually signals a tightening of credit by the Fed to neutralize rising inflation. As the chart reports, this is not presently the case, which indicates that the Fed can reduce short-term interest rates and revive aggregate demand much more quickly than it could in previous downturns, if it so desires.

While on the surface it appears as if the Fed is moving in that direction, other indicators of monetary policy suggest more caution. For instance, take the ratio of the monetary aggregate M2 to gross national product. This proxy of domestic liquidity has been in a state of decline for four years now. When output growth outpaces increases in the money supply, deflation and recession traditionally result. After the 1981 drop in domestic liquidity and subsequent slowing of business activity, liquidity advanced sharply in 1982 and 1983. Likewise, when the economy slowed in 1986, liquidity shot up solidly, stimulating continued growth. It's safe to assume that any sustainable rebound in business activity this time around will also need to be correlated with a turnaround in domestic liquidity.

Commercial and industrial loans data also flash warning. While the chart represents the loan market's equilibrium position, implying that both supply and demand factors are working to determine the level of credit that commercial banks are providing business borrowers, the persistence of the downward slope is clear. Whether it is because the demand for loans by business leaders has dropped (implying that the long-

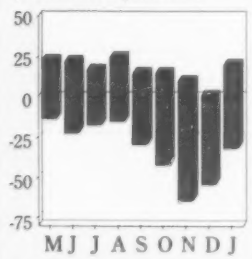
Steel

Operating rates

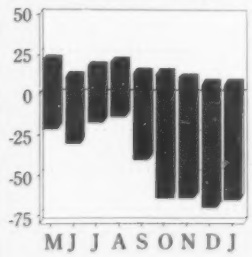


Inventories
(months supply on hand)

Demand (Steel Service Centers)
(Percent of respondents)



Demand (NAPM)
(Percent of respondents)



Source: Steel Service Center Institute
NAPM Steel Buyers Committee

term outlook for business investment is worsening) or the fact that the portfolio positions of commercial banks are forcing them to significantly cut back lending, the end result is the same.

Loan growth must rebound if this correction is to be short and mild.

Also tempering optimism: the fact that manufacturing performance is a coincidental indicator, not leading. The aftershocks of recession are likely to begin placing additional strain on this sector, resulting in new cutbacks in consumer and business spending.

How well manufacturing absorbs recession's aftershock will be the critical factor in deciding whether or not the current correction is to be milder than the historical "norm."

METALS SCENE

Steel sector under pressure

Last year, profound changes in the consumer and business sectors began to impact the steel market. This year, those same changes will not only continue, they'll intensify, placing even greater strain on industry operating rates and profits.

While shipments in 1990 probably topped the 1989 record of 84.3 million tons, industry profits clearly dropped. Despite stronger sales and improved production efficiencies, profit margins got squeezed last year because of lower selling prices, higher labor and material costs, and equipment downtime.

Inland Steel believes that increased industry shipments to heavy industrial markets made up for the retrenchment in consumer markets last year. But, since manufacturing is a coincidental indicator, this sector's slowing isn't likely to be clearly noticeable until late in the first quarter of 1991, suggesting the slowdown by the industrial market has yet to be fully felt.

New plant and equipment spending remained strong in 1990, and Inland feels that a resolution to the Gulf conflict will stimulate a rebound in business investment, especially for new productivity-enhancing equipment. Inland is especially optimistic about investments by the petroleum and electric utility sectors, because of their need to comply with the new Clean Air Act. High levels of investment are also anticipated from firms in the chemical and paper markets, once the uncertainty from the Middle East is removed.

With respect to specific markets, Inland's 1991 expectations regarding steel demand are as follows: construction, down 1.3 million tons; oil and gas markets, up 700,000 tons; equipment and producer markets, flat to down slightly; and consumer markets, down 700,000 tons. Shipments to major appliance manufacturers are also expected to drop. Demand from shipbuilders, agricultural and rail buyers, however, is forecast to remain relatively healthy.

Inland's capital spending outlook is not unreasonable, but I would suggest caution in placing too much hope on strong business investment this year. The commotion in the Gulf and the uncertainty it stimulates is a dampening factor on current economic activity, but at least one study indicates enough uncertainty will remain even following the conclusion of the war, largely due to rising unemployment.

Though there is not a tremendous amount of new capacity scheduled for 1991, the total production potential of 119.1 million tons is substantially greater than domestic shipment forecasts, which range between 76-79 million tons. Clearly, prices should remain in a depressed state for much, if not all, of 1991.

Import prices
(Compared to domestic)

STEEL BUYERS
ABOVE 25%
SAME 32%
SLIGHTLY BELOW 43%
SUBSTANTIALLY BELOW 0%
SERVICE CENTERS (CARBONS)
ABOVE 4%
SAME 70%
5-10% BELOW 21%
11-20% BELOW 5%
OVER 20% BELOW 0%

REGIONAL PERSPECTIVE

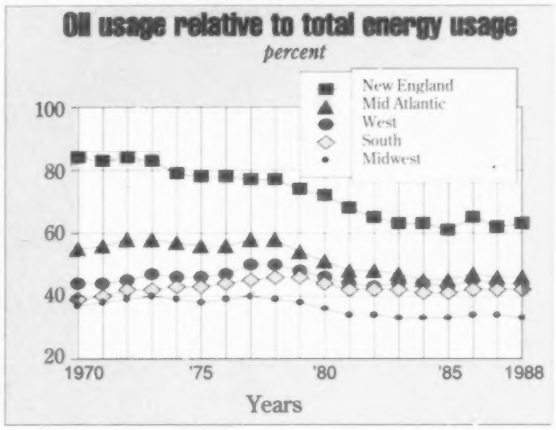
Oil's impact

Many believe that it was the run up in oil prices which pushed the Fed's slow-growth economy into recession. Oil's pervasive impact on production, packaging and distribution costs, it is argued, applied a negative drag on the economy which, due to the lagged effects of monetary policy, the Fed could not compensate for fast enough. Nevertheless, according to a recent *Economic Commentary* at the Federal Reserve Bank of Cleveland, "Although rising oil prices have a net negative impact on the U.S. economy, certain regions and business sectors suffer disproportionately, while others actually benefit."

The study evaluated oil's regional importance by evaluating three factors: 1) oil's share of firms' total costs, 2) the ease with which firms can substitute other inputs for oil, and 3) consumers' ability to switch to other products if a firm attempts to raise its prices.

In the United States, oil usage by sector in 1989 was as follows: the transportation industry accounted for 63% of all oil used; industrial activity commanded 25%; the residential sector claimed 4.7%; and the commercial and electric utility sectors used 7.7%.

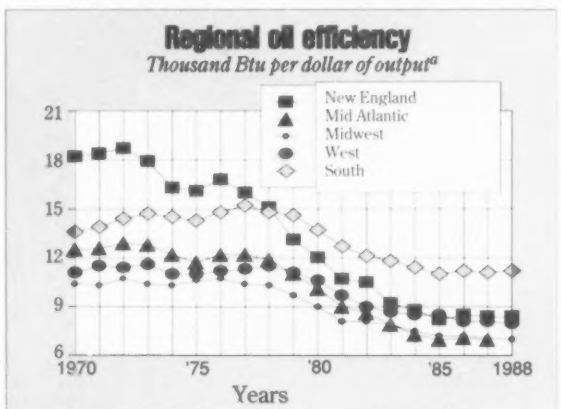
By comparing each region's sector mix and efficiency in using oil, the authors uncovered some interesting statistics. New England's use of oil relative to total energy usage is substantially greater than any other region, followed by the Mid-Atlantic, West, South and Midwest.



In the South, a much higher share of oil is consumed in industrial production, when compared with the rest of the country. The fact that some southern states produce oil might have induced many petroleum-intensive industries to gravitate there, and is one reason why this area claims the nation's highest share of oil consumed by the industrial sector.

New England, on the other hand, has the highest share of oil consumption being claimed by the residential and electric utility sectors. In the West, transportation accounts for a greater share of oil usage than is the case for the nation overall. The Midwest, meanwhile, generally mirrors the economy in oil consumption patterns.

Three-fourths of the country's total oil producing facilities are located in four states—Alaska, Texas, Louisiana and California—which is good news for them, because higher prices translates into larger revenues. It was even suggested for Alaska, where oil revenues are a substantial share of gross state product (GSP), that the entire state may emerge as a net gainer.



a: Measured in 1982 dollars using real gross state product data.
Source: Energy Information Administration, State Energy Data Report.

By analyzing the impact of oil price movements on GSPs, the states most adversely and positively affected by the current commotion in the Persian Gulf were discovered. Only seven states are expected to witness a long-run net gain because of higher oil prices: Alaska, Wyoming, Louisiana, Oklahoma, New Mexico, Texas, and West Virginia (a leading coal producer). The ten hit hardest in the long-run (from least to worst): Oregon, Georgia, Florida, Massachusetts, Hawaii, South Dakota, Maryland, Rhode Island, Michigan, and Arizona.

Since the early 1970s, there have been significant reductions in the usage of oil by every region of the country, suggesting two things: 1) energy conservation continues, and 2) the country is more immune to oil shocks today than it was 20 years ago. It is clear, however, that volatility in oil prices impacts regions differently, and that oil costs will play an important role in the determination of regional business activity during the near future.

CURRENT PRICES

Inflation fears should hibernate

While oil-induced price run ups remain a possibility, the U.S. inflation rate is clearly trending lower.

The producer price index (PPI), excluding food and energy, has been displaying an annual growth rate of roughly 3.5% since last summer. In fact, this year's average rate of 3.5% is significantly lower than 1989's level of 4.2%. Even better news is that four reasons suggest disinflation (falling levels of inflation) well into the third quarter of 1991.

Here's why: 1) the PPI is a measure of prices received by producers in the first commercial transaction. Because it is a stage-of-processing price index (upstream on the supply side), it is often interpreted as an indicator of inflation, via the transmission process along the value chain; 2) there is no mistaking that commodity prices, without oil, are trending lower; 3) the recession will push unemployment near 7.5%, forcing consumer demand to also enter a period of hibernation through at least mid-year; and 4) even when the economy does begin its revival, the recovery will be characterized by sub-par growth, and risk of renewed recession (remember the 1980, 1982 experience?).

As long as Alan Greenspan serves as Chairman of the Federal Reserve, the central bank will be quietly moving toward zero inflation (this is an optimal goal as long as the proper measurement of inflation is found).

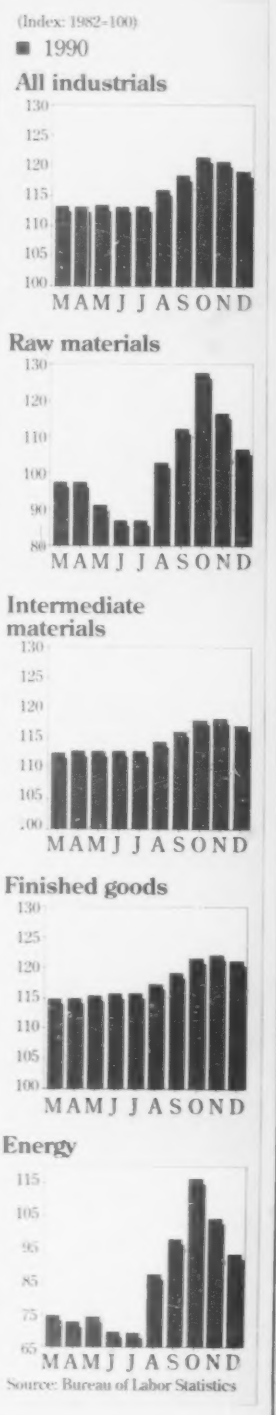
This ideology of zero inflation is why the Fed has, to date, only used a course of gradualism to fight the current recession—and also why the Fed will maintain a very low growth ceiling on our next expansion flight.

This month's breakdown

Index 1982=100

	Latest level	month ago	year ago
Bearings	131.1	0.2	4.3
Bolts, nuts, etc.	117.0	0.3	1.9
Chemicals, inorganic	112.7	-0.3	2.0
Chemicals, organic	118.4	-2.0	5.7
Concrete products	115.2	0.2	2.9
Corrugated containers	107.1	-0.3	-4.6
Cutting tools, small	114.3	0.1	1.6
Electrical lamps (bulbs)	131.5	0.6	0.9
Electronic components	118.4	0.3	-0.3
Fans and blowers	124.9	0.0	3.1
Foundry and forge products	118.1	0.2	2.5
Fuel oil (residual)	73.7	-8.3	42.0
Furniture, commercial	134.7	0.1	3.0
Gasoline	88.0	-10.5	45.2
Glass, flat	106.7	-0.1	-2.2
Glass containers	121.0	0.0	4.6
Gypsum products	103.4	-1.3	-5.5
Hand tools	137.3	1.0	5.3
Hand tools, power driven	122.1	0.2	2.9
Industrial furnaces	129.4	0.7	3.1
Integrating and measuring instruments	128.4	0.5	3.8
Internal combustion engines	121.8	0.2	3.8
Lubricating oil	137.5	0.7	23.2
Lumber millwork	131.0	0.2	1.8
Material handling equipment	116.0	0.1	2.3
Metal containers	114.1	0.1	1.3
Metal mill shapes	129.7	-1.9	-0.9
Metal tanks	114.5	-0.3	2.5
Metalworking machines	124.8	0.2	3.9
Motors and generators	133.3	0.3	2.1
Motor trucks	123.2	-0.4	3.7
Nonferrous metals	130.6	-3.4	-0.4
Office and store equipment	109.1	0.2	1.3
Paperboard	133.9	-0.8	4.4
Paper boxes and shipping containers	129.4	-0.1	1.3
Paper office supplies	122.3	0.0	1.1
Paint	126.7	0.2	3.9
Plastic resins	131.2	2.0	6.4
Precision measuring tools	132.3	1.4	5.6
Pumps and compressors	121.1	0.6	4.0
Refactories	123.4	0.2	3.2
Rubber belts and belting	121.6	-0.2	4.3
Scales and balances	109.5	0.1	1.5
Switch gear	126.4	0.2	4.5
Textiles, synthetic fibers	107.8	1.1	0.8
Textiles, gray fabrics	118.0	0.5	1.1
Tires and tubes	97.8	-0.3	0.7
Transformers and power regulations	122.9	1.0	3.7
Welding equipment	129.9	0.2	5.1
Wire and cable	140.9	-1.9	-1.2

Industrial prices



Source: Bureau of Labor Statistics

PROCUREMENT

Dive continues

January's Purchasing Managers' Index (PMI) confirmed what many of us have feared: with the exception of the inventory argument, it is hard to make a strong case why this recession will be less painful in terms of its length and severity than historical norm. The PMI fell for the fourth straight month in January, to 37.7. Even worse, the first reading of 1991 was significantly lower than 1990's ending mark, suggesting the economy's slide intensified.

With new orders still wretchedly poor (35.7 in January), it's hard to be optimistic. They need to stabilize and turn upward, because until they do, our current economic contraction will persist.

Production worsened for the sixth straight month in January, with the outlook dim for any near-term improvement. Clearly manufacturing is a coincidental indicator in this recession. With the aftershocks of the economy's initial fall now impacting this sector's new orders, operating rates will do well simply to level off.

The good news, however, is that the energy-induced price run-up (at least the one due to Iraq's August 2 invasion) seems to have worked its way through the system. Of course, the stagnating of demand has obviously helped.

Commodities still reported to be displaying upward price pressures: steel (reports mixed), acetic acid, caustic soda, soda ash, methyl ethyl ketone (MEK), sulfur, pigments, plastic resins, cotton fabric, petrochemicals, glass, adhesives, rubber, and polyethylene.

Inventory patterns

Expectations are that this will be a milder than normal recession, primarily because manufacturing inventories appear so well-managed. As the current economic correction begins to play out, inventory-to-sales (I/S) ratios will be an important indicator of health, both for the economy and individual firms, because they measure supply (inventory) relative to demand (sales).

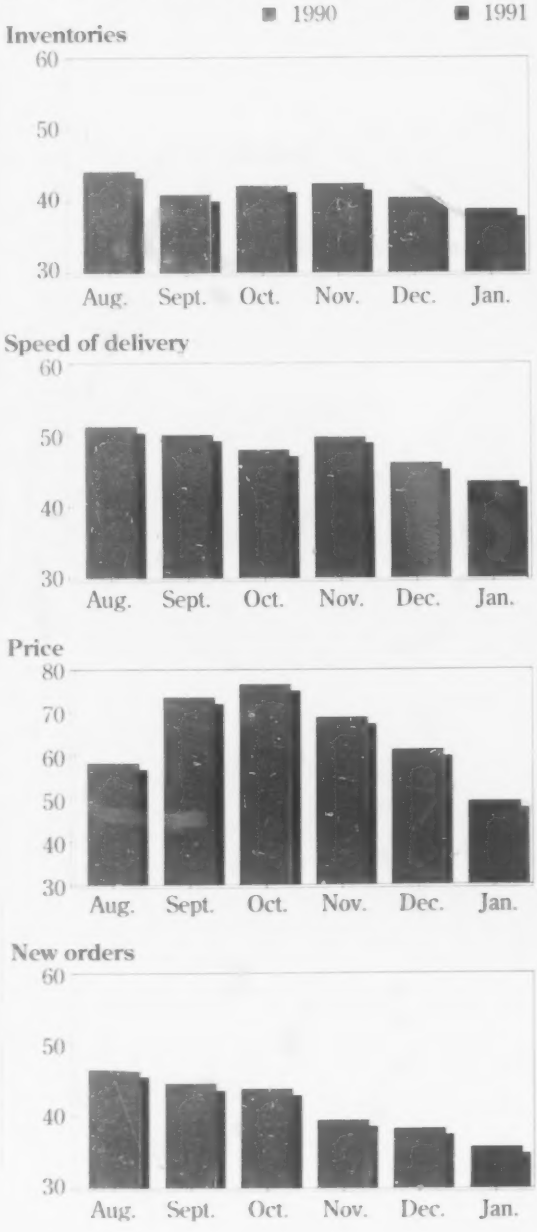
In the past, gross national product (GNP) and industrial production have declined (sharply at first) for two to three quarters when the business cycle turned down due, at least in part, to the inventory cycle.

The inventory cycle deals with the fact that once sales start to plummet, manufacturing's I/S ratio rises until sales rebound, no matter how much these firms try to reduce inventories. As a re-

NAPM procurement trends

(Seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory, prices and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.



sult, the number of months the manufacturing I/S ratio tends to rise is highly correlated with the duration of previous recessions. Historically, they not only move together, but the manufacturing I/S ratio peaks one-to-two months prior to the economy's bottoming out.

Dr. Michael Evans, the economist for the American Production and Inventory Control Society expects the manufacturing I/S ratio to rise only 13%, to 1.70, in the current correction. This increase is roughly half of that which occurred in 1981, when it took 14 months for the ratio to peak. On the surface, such inventory movement would suggest a less-than-normal slide in GNP and industrial production.

Unfortunately, the retail I/S ratio, which has not previously shown any cyclical tendency, may begin to display one. There seems to have been a structural shift in the relationship of manufacturing and retail inventories, which is why since last April I have been warning manufacturing buyers to carefully monitor their downstream retailers.

Retail I/S ratios are at historical highs and the service sector is in the midst of a shakeout, implying that retail inventories might be about to make their presence known.

LATEST SPOT MARKET PRICES

	Latest price	Previous month	Jan. 1991
FERROUS METALS			
Steel, bars, stainless, 303, cwt	188.00	188.00	188.00
Steel, bars, HR carbon, 1000 series, cwt	19.20	19.20	19.20
Steel, bars, HR carbon alloy, cwt	25.00	25.00	25.00
Steel, bars, CF carbon 12L14, cwt	35.25	34.00	34.00
Steel, plates, carbon, cwt	24.25	24.25	24.25
Steel, plates, strip mill, cwt	25.35	25.35	23.60
Steel, plates, alloy, cwt	34.05	34.05	34.05
Steel, sheets, C.R., class 1, cwt	31.90	31.90	30.65
Steel, sheets, HR, cwt	24.00	24.00	23.00
Steel, sheets, stainless, 304, cwt	124.00	124.00	124.00
Steel, strip, HR carbon, cwt	22.10	22.10	22.10
Steel, strip, CR carbon, cwt	36.18	36.18	36.18
NONFERROUS METALS			
Aluminum, unalloyed ingot, lb	0.67	0.70	0.71
Aluminum, alloyed ingot, 355, lb	0.89	0.94	0.94
Aluminum, secondary ingot, 380, 30000 lb lot	0.71	0.71	0.71
Antimony, lb, merchant	0.78	0.80	0.85
Cadmium, N.Y., dealer, lb	2.80	2.90	1.20
Copper, electrolytic wire bars, lb	1.19	1.30	1.23
Copper, cathode, full plate, lb	1.09	1.19	1.16
Gold, N.Y., troy oz	376.95	390.80	384.85
Lead, common, N.Y., lb	0.33	0.37	0.38
Magnesium, pig ingot, (99.8%), lb	1.43	1.50	1.63
Mercury, 50 fl. lots, N.Y., fl.	175.00	175.00	185.00
Molybdenum, oxide, canned, lb	2.65	2.70	3.35
Nickel, cathode, dealer, lb	3.96	3.88	4.03
Platinum, dealer, oz	390.00	408.00	418.00
Silver, N.Y., troy oz	3.84	4.12	4.10
Tin, N.Y., dealer, lb	2.59	2.50	2.63
Zinc, high grade, lb	0.57	0.63	0.70
Zinc, die casting alloy, No. 3, lb	0.78	0.78	0.78
PAPER (unit=ton)			
Uncoated book #3 offset	940.00	940.00	940.00
Uncoated bond #4, 83 bright	860.00	920.00	900.00
Watermarked bond, 20 lb sheets	1090.00	1090.00	1090.00
Unbleached kraft paper, grocery bag, 30 lb	660.00	660.00	660.00
Bleached kraft, grocery bag, 30 lb	800.00	800.00	800.00
Solid bleached kraft paperboard, folding	830.00	830.00	830.00
Kraft linerboard, 42 lb, domestic, East	350.00	360.00	370.00
Kraft linerboard, 42 lb, domestic, West	360.00	370.00	410.00
Newsprint, 30 lb, East	594.00	565.00	565.00
TEXTILES (unit=lb)			
Acrylic, open-end spun, 1/18, unbranded	1.61	1.61	1.74
Carded cotton, ring-spun, 18/1	1.56	1.56	1.56
Carded cotton, open-end spun, 18/1	1.30	1.25	1.35
Combed cotton, ring-spun, 100%, 18/1	1.76	1.71	1.75
Nylon, textured, 70/2	2.70	2.70	2.70
Polyester, 50/50% carded cotton, 30/1	1.75	1.85	1.77
Polyester, ring-spun, 100%, 16/1, unbranded	1.53	1.54	1.48
Rayon, high-wet modulus	1.48	1.46	1.48
CHEMICALS			
Acrylonitrile, tanks, lb	0.36	0.36	0.36
Ammonia, anhydrous, tankcars, ton	125.00	125.00	125.00
Benzene, gal	1.47	1.50	2.00
Caustic soda, metric ton	340.00	335.00	335.00
Cresylic acid (over 25%), tanks, lb	0.55	0.60	0.60
Formaldehyde, 37%, (12%-15% meth.), tanks, lb	0.15	0.12	0.12
Glycerine, synthetic, 96%, tanks, lb	0.75	0.76	0.76
Methanol, syn., barges, Gulf Coast, gal	0.58	0.54	0.47
Naphthalene, crude, tanks, lb	0.17	0.20	0.20
Phthalic anhydride, molten, tanks, lb	0.46	0.51	0.51
Polyethylene resin, low density, lb	0.44	0.48	0.48
Polypropylene, homo-injection, lb	0.43	0.44	0.49
Polystyrene, general purpose grade, lb	0.53	0.58	0.58
Polyvinyl chloride, pipe grade, lb	0.34	0.36	0.36
Soda ash, light 58%, 100 lb, paper bags	165.00	160.00	160.00
Styrene monomer, 99.6%, tanks, lb	0.41	0.45	0.48
Sulfur, dark, Tampa, FL, long-ton	140.00	140.00	140.00
Sulfuric acid, 66%, commercial, tanks, ton	69.89	69.89	69.89
Titanium dioxide, anatase, reg., carlots lb	0.99	0.99	0.99
Xylene, Gulf Coast, spot, barge, gal	0.95	1.05	1.50
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	334.48	325.99	323.35
Lumber 2x4 pine, mbf, cl	320.64	315.31	315.38
Plyform, 3/4", msf, cl	576.00	592.22	595.80
Plywood, 5/8", msf, cl	347.35	353.10	361.95
Cement, type 1, bulk, ton	63.39	62.10	62.10
Sand, concrete, ton, cl	6.48	6.87	6.87
Ready-mix concrete, 3000 psi/cu. yd.	50.38	49.65	49.65
Crushed stone, base course, ton, cl	6.39	6.18	6.18
Concrete blocks, sand/gravel, 8"x8"x16" per hundred	85.19	84.47	84.47
Reinforcing bars, grade 60, per cwt.	21.24	21.49	21.71
Asphalt paving AC-20, ton	130.99	122.72	122.72
Concrete sewer pipe, 24", per ft, cl	17.64	17.50	17.79
FUELS			
Crude oil (W. TX Int.), bbl	21.42	28.44	30.25
Diesel (reseller rack, Chi.), gal	0.63	0.74	0.90
Heating oil No. 2 (N.Y.), gal, spot	0.71	0.81	0.86
Heating oil No. 2 (Gulf spot), gal, spot	0.65	0.79	0.84
Fuel oil No. 6 (N.Y.), tank car contract	18.35	23.35	23.35
Gasoline (prem unlded N.Y.), gal, spot	0.70	0.73	0.80
Gasoline (reg unlded N.Y.), gal, spot	0.68	0.71	0.78
Kerosene (reseller rack, Chi.), gal	0.73	0.82	1.00
Propane, spot	0.27	0.44	0.50
SCRAP MATERIALS			
Aluminum, old sheet & cast, cl	0.43	0.43	0.42
Aluminum, mixed clips, cl	0.49	0.48	0.49
Brass, yellow solids, cl	0.61	0.62	0.62
Copper, No. 1, brass ingot makers', cl	0.95	1.02	0.97
Copper, No. 2, brass ingot makers', cl	0.87	0.93	0.87
Steel, no. 1, hvy., dlvd., Pitts., ton	103.00	105.00	105.00
Steel, no. 1, hvy., dlvd., Chi., ton	100.00	105.00	105.00
Zinc, old, smelters scrap, cl	0.30	0.30	0.30
Zinc, die cast slab, smelters scrap, cl	0.36	0.36	0.36

Sources: Metals week, American Metal Market, Engineering News-Record (20-city averages), America's Textiles International, Journal of Commerce, Chemical Marketing Reporter, Pulp and Paper Week, Chemical Week and Plastics News.

*This page has been revised to better serve you.